

ABSTRACT

An aircraft engine nacelle comprises: (a) an inlet lip and a skin having internal and external surfaces; (b) a noise abatement structure such as an acoustic panel located on the internal surface of the nacelle skin; and (c) an electrically powered de-icing system located on the external surface of the nacelle skin and in electrical connection to a power source. A method for de-icing and abating noise from an aircraft nacelle comprises: (a) providing a noise abatement structure such as an acoustic panel located on the internal surface of the nacelle skin; (b) providing an electrically powered de-icing system on the external surface of the nacelle skin; and (c) applying an electric current to the electrically powered de-icing system. The nacelle skin may be a perforated skin, and the de-icing system comprises a wire mesh bonded to the external surface of the perforated skin. The method and nacelle permit the use of noise abatement structures such as acoustic panels for noise reduction while advantageously avoiding detrimental high temperatures associated with conventional de-icing systems.